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10/089,310	08/28/2002	Simon Christopher Peter Ashton	P1999S008	7324

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/089,310
Filing Date: August 28, 2002
Appellant(s): ASHTON, SIMON CHRISTOPHER PETER

Joseph J. Allocca
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 24, 2005 appealing from the Office action mailed January 25, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

GB-735,134 08-1955

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-16 are rejected under 35 U.S.C. 103(a) as obvious over GB-735,134.

The GB reference discloses a process for producing a jet fuel comprising a kerosene fraction and a naphtha fraction (page 10, lines 89-95). The naphtha fraction (produced by catalytic cracking) has a boiling point of from 280 to 350° F (138-177° C) and the kerosene fraction has a boiling point of from 330 to 550° F (167-287° C) (page 3, line 73, 89-90; page 9, lines 19-21 and 82-83). The GB reference teaches that the naphtha fraction is rich in aromatics which is then incorporated directly in the jet fuel which has a total aromatics content of about 20 to 25 vol. % as claimed (page 9, lines 85-89, 108-111; page 10, lines 92-93; Tables 1 and 4). Hence, it would be expected that the naphtha fraction would contain at least 50 vol. % of aromatics as claimed. In addition, the GB reference discloses that the kerosene fraction is represented one of the major constituents of the jet fuel (page 9, line 126 through page 10, line 2) and the jet fuel comprises a minimum of 0.5 or 2. vol. % of the naphtha fraction (page 9, line 89-92). Therefore, it would be expected that the jet fuel would comprises more than 75 vol. % of kerosene. It is noted that the reference does not specifically disclose that the jet fuel has a freezing point below that of the kerosene prior to blending. However, the reference discloses that the jet fuel has a freezing point of lower than –76° F (-60° C) (page 3, lines 15-16). Therefore, it would be expected that the jet fuel would have a freezing point below that of the kerosene prior to blending as claimed.

Claims 1, 3, 4, and 9-11:

The GB reference does not disclose the claimed boiling ranges of the naphtha fraction and the kerosene fraction. However, the reference discloses that the naphtha fraction has a

boiling range of from 280 to 350° F (138-177° C) and the kerosene fraction has a boiling range of from 330 to 550° F (167-287° C).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of the GB reference by utilizing a naphtha fraction and a kerosene fraction having the claimed ranges because one of skill in the art would utilize any naphtha fraction having a boiling ranges of from 280 to 350° F (138-177° C) and any kerosene fraction having a boiling point of from 330 to 550° F (167-287° C) including the overlapped claimed ranges with the expectation that any fraction having a boiling point within the ranges would give similar results.

Claims 2, and 12:

The jet fuel has a freezing point of lower than -76° F (-60° C). Page 3, lines 15-16.

Claims 5, 7, 13 and 15:

The jet fuel comprises a minimum of 0.5 or 2. vol. % of the naphtha fraction (page 9, line 89-92). As discussed above, the jet fuel comprises primary kerosene and naphtha (it is optional to add light fractions (e.g., C_4, C_5) to the jet fuel. Thus, it would be expected that the amount of the kerosene fraction in the jet fuel would be in the range of 80-90 vol. % as claimed.

Claims 6 and 14:

The naphtha fraction is only optional to treat in a hydroforming zone to increase octane number of the fraction where it is intended that it be used as gasoline. Pages 9, lines 93-102; figure 4. Therefore, the limitation "substantially unhydrorefined" is embraced by the reference.

Claims 8 and 16:

The jet fuel also comprises anti-oxidants. Page 10, line 76.

(10) Response to Arguments

The argument that, in the GB process, the boiling ranges for the naphtha of between 138° C -177° C is not arbitrary nor non-limiting and the reference does not suggest other broader ranges is not persuasive. The GB reference teaches that varies fractions of naphtha (e.g., light and heavy naphtha fractions) can be mixed with kerosene to produce a final product which has a boiling range of from 100° F to 600° F. Therefore, it is not necessary to employ a naphtha fraction, which must have a precise boiling range of from 138-177° C. (See page 10, lines 79-83, claim 1)

The argument that a naphtha fraction having an end point of 177° C is much lighter and much different than a naphtha fraction boiling between T_5 =165° C to T_{95} = 210° C is not persuasive. The GB reference teaches that various feedstocks can be used in the process (page 6, lines 66-72) and the blend product boils in the ranges of from 100° F to 600° F (see claim 1). Therefore, the examiner maintains that one of skill in the art would utilize any naphtha fraction having a boiling range of from 280 to 350° F (138-177° C) including the overlapped claimed ranges (or the claimed naphtha) because the prior art discloses a range reasonably similar or close to the claimed range, prima facie obviousness is established due to the expectation of similar results of similar ranges. See *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 783, 227 USPQ 773, 779 (Fed. Cir. 1985).

The argument that the -76° F temperature as taught by the reference is just the government's military specification for the acceptable freeze pint of jet fuel is not persuasive because the GB reference clearly teaches that the process is possible to produce jet fuels having freezing pints lower than -76° F (see page 2, lines 50-55 and page 3, lines 10-17).

The argument that the kerosene fraction of the GB reference is different from the claimed kerosene fraction boiling within the range of 140° C to 250° C is persuasive. The boiling ranges of the kerosene fraction of the GB reference overlap the claimed boiling ranges. Therefore, the examiner maintains that one of skill in the art would utilize any kerosene fraction having a boiling range of from 330 to 550° F (167-287° C) including the overlapped claimed ranges because the prior art discloses a range reasonably similar or close to the claimed range, prima facie obviousness is established due to the expectation of similar results of similar ranges. See *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 783, 227 USPQ 773, 779 (Fed. Cir. 1985).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Tam Nguyen/ TN

6/10/05

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